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09/827,138	04/05/2001	Philip S. Rosenberg	14014.0386U1	5102

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STEVENS, THOMAS H	
ART UNIT	**PAPER NUMBER**
2123	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/827,138	ROSENBERG, PHILIP S.	
	Examiner	Art Unit	
	Thomas H. Stevens	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-72* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-72* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 April 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-72 were examined.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because it discloses common electronic tools for simulation and analysis.

Specification Objection---Hyperlinks

3. The disclosure is objected to because it contains an embedded hyperlink (pg. 1, line 33) and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,2,5,8-23, 32,35,38-51,61-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling.

Claim 1. A method for processing data in a MATLAB® environment of a computer, comprising the steps of: a. embedding input data and associated meta-data in a single object, and b. constructing the input data and associated meta-data into a plurality of statistical variables, wherein the plurality of statistical variables can be processed statistically (pg. 1, Introduction, section 1.2).

Claim 2. The method of claim 1, wherein the plurality of statistical variables form a coherent structure (pg. 1, Introduction, section 1.2).

Claim 5. The method of claim 1, further comprising a step of creating a contingency table (pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25) from the plurality of statistical variables.

Claim 8. The method of claim 5, wherein the step of creating a contingency table from the plurality of statistical variables comprises a step of creating the contingency table using the hypertext markup language (pg. 25, ">>type DETAILS" with the 4 lines immediately following).

Claim 9. The method of claim 8, wherein the contingency table created by using the hypertext markup language is generated on a web page (pg. 26, last paragraph with pg. 24 figure 4.4 and pg. 13, figures 3.1/3.2).

Claim 10. The method of claim 1, further comprising a step of aggregating a dataset from the plurality of statistical variables (pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25).

Claim 11. The method of claim 10, wherein the step of aggregating a dataset from the plurality of statistical variables comprises the steps of:

a. providing a plurality of objects with same length, each object having a set of statistical variables (pg. 28, lines 1-10);

b. providing meta-data associated with the plurality of objects(pg. 7, "tester.txt"); and constructing a dataset from the plurality of objects and the associated meta-data, wherein all statistical variables in the dataset can be statistically processed at once (section 4.2, pg.26-27).

Claim 12. The method of claim 11, wherein all statistical variables in the dataset can be statistically processed at once using standard MATLAB® syntax (section 4.2, pg.26-27).

Claim 13. A method for processing data in a MATLAB®(pg. 1, Introduction, section 1.2) environment of a computer, comprising the steps of: providing a statistical model with control parameters, b. providing input data (pg. 15, sections 3.1.6.2 through 3.1.6.5); constructing the input data and the control parameters into a single object (pg. 15,

sections 3.1.6.2 through 3.1.6.5); and d. processing the input data in the single object to produce an output according to the statistical model (pg. 15, section 3.1.6.6).

Claim 14. The method of claim 13, further comprising a step of adjusting the input data (pg.15, sections 3.1.6.4 and 3.1.6.7).

Claim 15. The method of claim 14, when the input data are adjusted, the output is changed accordingly (pg. 15, section 3.1.6.4).

Claim 16. The method of claim 15, further comprising a step of viewing and documenting the changes in the output interactively through a MATLAB®-based graphical interface (pg. 15, section 3.1.6.6).

Claim 17. The method of claim 14, wherein the step of adjusting the input data comprises a step of adjusting the input data interactively through a MATLAB® based graphical interface (pg. 15, section 3.1.6.2 and 3.1.6.3).

Claim 18. The method of claim 13(pg. 1, Introduction, section 1.2), further comprising a step of adjusting control parameters(See claim interpretation)

Claim 19. The method of claim 18(pg. 1, Introduction, section 1.2), when the control parameters are adjusted, the output is changed accordingly.

Claim 20. The method of claim 18(pg. 1, Introduction, section 1.2), wherein the step of adjusting control parameters comprises a step of adjusting the control parameters interactively through a MATLAB®-based graphical interface (pg. 36, section 5.8., lines 1-2)

Claim 21. The method of claim 13, wherein the statistical model is a regression model (pg. 1, Introduction, section 1.2).

Claim 22. The method of claim 21, wherein the regression model includes a generalized linear model (pg. 1, Introduction, section 1.2)

Claim 23. The method of claim 21, wherein the regression model includes a generalized additive model (pg. 1, Introduction, section 1.2)

Claim 32. A computer program product in a computer readable medium of instructions (pg. 1, Introduction, section 1.2), comprising: a. instructions within the computer readable medium for embedding input data and associated meta-data in a single object (pg. 15, section 3.1.6.2 through 3.1.6.5); and b. instructions within the computer readable medium for constructing the input data and associated meta-data into a plurality of statistical variables, wherein the plurality of statistical variables can be processed statistically (pg. 15, section 3.1.6.6).

Claim 35. The computer program product of claim 32(pg. 1, Introduction, section 1.2), further comprising instructions within the computer readable medium for creating a contingency table from the plurality of statistical variables (pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25).

Claim 38. The computer program product of claim 35 (pg. 1, Introduction, section 1.2), wherein the instructions within the computer readable medium for creating a contingency table from the plurality of statistical variables comprises the instructions within the computer readable medium for creating a contingency table from the plurality of statistical variables written in the hypertext markup language (pg. 25, ">>type DETAILS" with the 4 lines immediately following; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25).

Claim 39. The computer program product of claim 38(pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25), wherein the instructions within the computer readable medium for creating a contingency table from the plurality of statistical variables written in the hypertext markup language comprise instructions within the computer readable medium for generating the contingency table on a web Page (pg. 25, ">>type DETAILS" with the 4 lines immediately following; and pg. 13 figures 3.1/3.2).

Claim 40. The computer program product of claim 32(pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25), further comprising instructions within the computer readable medium for aggregating a dataset from the plurality of statistical variables.

Claim 41. The computer program product of claim 40(pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25), wherein the instructions within the computer readable medium for aggregating a dataset from the plurality of statistical variables comprise instructions within the computer readable medium for processing all statistical variables in the dataset at once using standard MATLAB® syntax.

Claim 42. A computer program product in a computer readable medium of instructions for processing data in a MATLAB® environment (pg. 1, Introduction, section 1.2) of a computer, comprising: a. Instructions within the computer readable medium for providing a statistical model with control parameters; b. Instructions within the computer readable medium for receiving and providing input data (pg. 12-20, Chapter 3); Instructions within the computer readable medium for constructing the input data and the control parameters into a single object, and (pg. 15, sections 3.1.6.2 through 3.1.6.6)d. Instructions within the computer readable medium for processing the input data in the single object to produce an output according to the model (pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5).

Claim 43. The computer program product of claim 42 (pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5), farther comprising instructions within the computer readable medium for adjusting the input data (pg. 15, section 3.1.6.3).

Claim 44. The computer program product of claim 43, wherein when the input data are adjusted, the output is changed accordingly (pg. 15, section 3.1.6.3 though 3.1.6.5).

Claim 45. The computer program product of claim 44, further comprising instructions within the computer readable medium for viewing and documenting the changes in the output interactively through a MATLAB® --based graphical interface (pg. 15, section 3.1.6.2 and 3.1.6.3).

Claim 46. The computer program product of claim 43, further comprising instructions within the computer readable medium for adjusting the input data interactively though a MATLAB®--based graphical interface (pg. 15, section 3.1.6.2 and 3.1.6.3).

Claim 47. The computer program product of claim 42(pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5), further comprising instructions within the computer readable medium for adjusting control parameters (pg. 15, section 3.1.6.3).

Claim 48. The computer program product of claim 47, wherein when the control parameters are adjusted, the output is changed accordingly (pg. 15, section 3.1.6.3 though 3.1.6.5).

Claim 49. The computer program product of claim 47, wherein the instructions within the computer readable medium for adjusting control parameters comprise instructions within the computer readable medium for adjusting control parameters interactively through a MATLAB® based graphical interface (pg. 15, section 3.1.6.3 though 3.1.6.5).

Claim 50. The computer program product of claim 42, wherein the statistical model is a regression model (pg. 1, Introduction, section 1.2).

Claim 51. The computer program product of claim 50, wherein the regression model includes a generalized linear model (pg. 1, Introduction, section 1.2).

Claim 61. A system for processing data in a MATLAB® environment of a computer, comprising: a. a processing means for embedding input data and associated meta-data in a single object; and b. an operating means for constructing the input data and associated meta-data into a plurality of statistical variables, wherein the plurality of statistical variables can be processed statistically (pg. 1, Introduction, section 1.2).

Claim 62. The system of claim 61, further comprising means for creating a contingency table from the plurality of statistical variables (pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25).

Claim 63. The system of claim 62, wherein the means for creating a contingency table from the plurality of statistical variables comprises means for creating the contingency table using the hypertext markup language (pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 25, ">>type DETAILS" with the 4 lines immediately following; and pg. 13 figures 3.1/3.2).

Claim 64. The system of claim 63, wherein the means for creating the contingency table using the hypertext markup language comprises means for generating the contingency table on a web page (pg. 26, last paragraph with pg. 24 figure 4.4 and pg. 13, figures 3.1/3.2).

Claim 65. The system of claim 61, further comprising means for aggregating a dataset from the plurality of statistical variables (pg. 26, last paragraph with pg. 24 figure 4.4 and pg. 13, figures 3.1/3.2).

Claim 66. The system of claim 61, further comprising means for processing all statistical variables in the dataset statistically at once using standard MATLAB® syntax (section 4.2, pg.26-27).

Claim 67. A system for processing data in a MATLAB® environment of a computer, comprising: a. means for providing a statistical model with control parameters (pg. 1, Introduction, section 1.2); b. means for providing input data (pg. 12, section 3.1.1.1); c. means for constructing the input data and the control parameters into a single object (pg. 15, section 3.1.6.4); and d. means for processing the input data in the single object to produce an output according to the statistical model (pg. 15, section 3.1.6.6).

Claim 68. The system of claim 67, wherein the input data are adjustable, and further comprising means for changing the output accordingly when the input data are adjusted (pg. 15, sections 3.1.6.2 through 3.1.6.4).

Claim 69. The system of claim 68, further comprising means for viewing and documenting the changes in the output interactively through a MATAB® based graphical interface (pg. 15, section 3.1.6.3 though 3.1.6.5).

Claim 70. The system of claim 68, further comprising means for adjusting the input data (pg. 15, section 3.1.6.3 though 3.1.6.5) interactively through a MATAB®-based graphical interface (pg. 15, section 3.1.6.3 though 3.1.6.5).

Claim 71. The system of claim 67, wherein the control parameters are adjustable, and further comprising means for changing the output accordingly when the set of control parameters are adjusted (pg. 15, section 3.1.6.7).

Claim 72. The system of claim 71, further comprising means for adjusting the control parameters interactively through a MATLAB®-based graphical interface(pg. 15, section 3.1.6.3 though 3.1.6.5).

Claim Rejections - 35 USC § 103

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 6,7,36,and 37 are rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view of Barnhill et al. U.S. Patent 6,714,925 May 1, (1999)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach plurality of contingency tables.

Barnhill teaches a system for enhancing knowledge from a data-learning machine, which encompasses contingency tables (abstract line 1 and column 14, 52) and MATLAB® code (column 14, lines 45-57).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Barnhill to modify Dunn since it would have been advantageous to construct such format for visual simplicity.

Claim 6. The method of claim 5(Dunn: pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25), wherein the contingency table is a two-way contingency table (Barnhill: abstract line 1 and column 14, line 52).

Claim 7. The method of claim 5(Dunn: pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25), wherein the contingency table is a three-way contingency table (Barnhill: abstract line 1 and column 14, line 52).

Claim 36. The computer program product of claim 35(Dunn: pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25), wherein the contingency table is a two-way contingency table (Barnhill: abstract line 1 and column 14, line 52).

Claim 37. The computer program product of claim 35(Dunn: pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25), wherein the contingency table is a three-way contingency table (Barnhill: abstract line 1 and column 14, line 52).

9. Claims 3,4, 33 and 34 are rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view of Peterson ("Commodity Price Behavior: A Rational Expectations Storage Model of Corn" (2000)) and in further view of Long ("Survival Analysis Using Cox Regression" (1999)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach b-spline functions nor censored survival data.

Peterson et al teaches commodity price behavior with the aid of b-spline functions (pg.14, equation) while Long teaches advanced mathematics encompassing censored survival data (pg.1, line 1).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Peterson and Long to modify Dunn since it would have been advantageous to encompass vast amounts of data into a computer so as to execute specified statistical software programs.

Claim 3. The method of claim 2 (Dunn: pg. 1, Introduction, section 1.2), wherein the plurality of statistical variables include continuous variables, categorical variables, rates, proportions, compound data, B-spline data (Peterson: pg. 14, equation), censored survival data (Long: pg.1, line 1), data from a Poisson process, binary response data, logical data, string data and longitudinal data (Dunn: pg. 26, line 4;pg. 30, section 5.2; and pg. 34 table 5.4).

Claim 4. The method of claim 2(Peterson: pg. 14, equation; Dunn: pg. 26, line 4;pg. 30, section 5.2;Long: pg.1, line 1), wherein a product of at least two of the plurality of statistical variables produces a new statistical variable (Peterson: pg. 24, paragraphs 3 and 4).

Claim 33. The computer program product of claim 32(Dunn: pg. 1, Introduction, section 1.2;pg. 15, section 3.1.6.2 through 3.1.6.7; pg. 26, line 4;pg. 30, section 5.2; and pg. 34 table 5.4), wherein the instructions within the computer readable medium for constructing the input data and associated meta-data into a plurality of statistical variables comprise the instructions within the computer readable medium for generating the plurality of statistical variables including continuous variables, categorical variables, rates, proportions, compound data, B-spline data(Peterson: pg. 14, equation), censored survival data(Long: pg.1, line 1), data from a Poisson process, binary response data, logical data and longitudinal data.

Claim 34. The computer program product of claim 33(Peterson: pg. 14, equation; Dunn: pg. 26, line 4;pg. 30, section 5.2;Long: pg.1, line 1), further comprising instructions within the computer readable medium for producing a new statistical variable by a product of at least two of the plurality of statistical variables (Peterson: pg. 24, paragraphs 3 and 4).

10. Claims 24 and 53 are rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view of Long ("Survival Analysis Using Cox Regression" (1999)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach proportional hazards regression. Long teaches advanced statistical mathematics encompassing proportional hazards regression (pg.1, line 14).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Long to modify Dunn since it would have been advantageous to encompass vast amounts of data into a computer so as to execute specified statistical software programs.

Claim 24. The method of claim 21(Dunn: pg. 1, Introduction, section 1.2), wherein the regression model includes a proportional hazards regression model (Long: pg.1, line 14)

Claim 53. The computer program product of claim 50(Dunn: pg. 1, Introduction, section 1.2), wherein the regression model includes a proportional hazards regression model (Long: pg.1, line 14).

11. Claims 25 and 54 are rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view Wang et al., ("Analysis of Oldest-Old Mortality: Lifetables Revisited" (1998)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach smoothing. Wang et al., teaches data analysis and few methodological advance affiliated with aging, while encompassing smoothing techquies to manipulate and analyze technical data (pgs. 136, 2nd paragraph and 141).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Wang et al. to modify Dunn since it would have been necessary to curve fit the data for analysis.

Claim 25. The method of claim 21(Dunn: pg. 1, Introduction, section 1.2), wherein the regression model includes a smoother (Dunn: pg. 11, last paragraph with figure 2.1; and Wang et al: pgs. 136, 2nd paragraph and 141).

Claim 54. The computer program product of claim 50 (Dunn: pg. 1, Introduction, section 1.2), wherein the regression model includes a smoother (Dunn: pg. 11, last paragraph with figure 2.1; and Wang et al: pgs. 136, 2nd paragraph and 141).

12. Claims 26-31, 56, 57 and 60 are rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view of Long ("Survival Analysis Using Cox Regression" (1999)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach cox linear modeling, censored survival data and hazard spline regression. Long teaches advanced statistical mathematics encompassing cox linear modeling, censored survival data and hazard regression.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Long to modify Dunn since it would have been advantageous to encompass vast amounts of data into a computer so as to execute specified statistical software programs.

Claim 26. The method of claim 13(Dunn: pg. 15, sections 3.1.6.2 through 3.1.6.5), wherein the statistical model is a model for censored survival data (Long: pg. 1, line 1).

Claim 27. The method of claim 26(Dunn: pg. 15, sections 3.1.6.2 through 3.1.6.5;and Long: pg. 1, line 1), wherein the model for censored survival data includes a regression model (Dunn: pg.1, Instruction, section 1.2).

Claim 28. The method of claim 26(Dunn: pg. 15, sections 3.1.6.2 through 3.1.6.5;and Long: pg. 1, line 1), wherein the model for censored survival data includes a generalized linear (Cox) model (Long: title).

Claim 29. The method of claim 26(Dunn: pg. 15, sections 3.1.6.2 through 3.1.6.5;and Long: pg. 1, line 1), wherein the model for censored survival data includes a local likelihood model (Long: pg. 1, last two sentences).

Claim 55. The computer program product of claim 42 (Dunn: pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5), wherein the statistical model is a model for censored survival data (Long: pg. 1, line 1).

Claim 56. The computer program product of claim 55(Dunn: pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5), wherein the model for censored survival data includes a regression model (Long: pg. 1, 1st paragraph).

Claim 57. The computer program product of claim 55(Dunn: pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5), wherein the model for censored survival data includes a generalized linear (Cox) model (Long: title and pg. 1, line1).

Claim 58. The computer program product of claim 55(Dunn: pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5), wherein the model for censored survival data includes a local likelihood (Long: pg. 1, last two sentences).

13. Claims 30 and 59 are rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view of Phillips et al., ("The Household Registration System: Computer Software for the Rapid Dissemination of Demographic Surveillance Systems" (2000)) and in further view of Long ("Survival Analysis Using Cox Regression" (1999)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach cox linear modeling, censored survival data and hazard spline regression, and teach life table methods. Phillips et al., teaches longitudinal experimental community health research which encompasses life table methods (abstract: line 1 and section 3.1, line 3). Long teaches advanced statistical mathematics encompassing cox linear modeling, censored survival data and hazard spline regression.

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Phillips et al. and Long to modify Dunn since it would have been advantageous to have available a software program, which tolerates data annotations for statistical analysis.

Claim 30. The method of claim 26(Dunn: pg. 15, sections 3.1.6.2 through 3.1.6.5;and Long: pg. 1, line 1), wherein the model for censored survival data (Long: pg. 1, line 1) includes life table methods (Phillips: abstract: line 1 and section 3.1, line 3).

Claim 59. The computer program product of claim 55(Dunn: pg. 15, sections 3.1.6.2 through 3.1.6.5;and Long: pg. 1, line 1), wherein the model for censored survival data (Long: pg. 1, line 1) includes life table methods (Phillips: abstract: line 1 and section 3.1, line 3).

14. Claim 52 is rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view of Young ("Stochastic, Dynamic Modeling and Signal Processing: Time Variable and State Dependent Parameter Estimation" (2000)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach general additive modeling (GAM).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Young to modify Dunn since it would have been advantageous to have another modeling simulation tool to expand a research firm's ability to extrapolate data.

Claim 52. The computer program product of claim 50(Dunn: pg. 1, Introduction, section 1.2)., wherein the regression model includes a generalized additive model (Young: pg. 91 lines 1-8).

15. Claims 31 and 60 are rejected under 35 U.S.C. 103 (a) as unpatentable by Dunn ("Glmlab—Using Matlab for analyzing generalized linear models" (1999)) in view of Long ("Survival Analysis Using Cox Regression" (1999)) and in further view of Rosenberg et al., ("Zoster Incidence in Human Immunodeficiency Virus—Infected Hemophiliacs and Homosexual Men, 1984-1997" (1999)). Dunn teaches a MATLAB® statistical program for analyzing generalized linear modeling; but doesn't teach censored survival data and hazard spline regression. Long teaches advanced statistical mathematics encompassing cox linear modeling, censored survival data and hazard regression while Rosenberg teaches human immunodeficiency among HIV infected men which encompasses the mathematical tools in the study such as a two-segment spline model (pg. 1785).

At the time the invention, it would have been obvious to one of ordinary skill in the art to use Long and Rosenberg to modify Dunn since it would have been advantageous to encompass these properties to manage and receive specified results due to large amounts data an experiment or study might utilize.

Claim 31. The method of claim 26(Dunn: pg. 15, sections 3.1.6.2 through 3.1.6.5;and Long: pg. 1, line 1), wherein the model for censored survival data (Long: pg. 1, lines includes hazard spline (Resenburg: pg. 1785) regression.

Claim 60. The computer program product of claim 55(Dunn: pg. 1, Introduction, section 1.2; pg. 26, section 4.2, lines 1-6 and; table 4.3 pg. 25; and pg. 17, section 3.1.8.5), wherein the model for censored survival data includes hazard spline (Resenburg: pg. 1785) regression.

Correspondence Information

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Any inquires of general nature or relating to the status of this application should be directed to the Group receptionist whose phone number is (703) 305-3900.

June 30, 2004

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